Remarks

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

The specification has been amended to correct the spelling of "neucleophilic" to --nucleophilic--, to correct the spelling of "N-benzylchinium chloride" to --N-benzylquinium chloride--, to clarify that "Nu-Q" is formula (3), and to correct two typographical errors in the paragraph bridging pages 1 and 2. Additionally, the specification has been amended to clarify that Example 6 is the Preparation of (R)-glycidylmethyl ether, rather than glycidylphenyl ether, which is evident by the use of methanol (page 22, line 18) as a starting material.

Claims 1, 2, 5 and 12-14 have been amended to be consistent with the changes to the specification. Claims 4, 10 and 11 have been amended to delete "acyl group" from the list of functional groups. Claims 6, 7 and 15-23 have been amended to delete reference to either compound (2) or compound (6), in order to provide antecedent basis for all of the claim limitations.

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 1-29 under 35 U.S.C. §103(a) as being unpatentable over Takano et al. in view of Jacobsen et al. is respectfully traversed.

Applicants' invention relates to a process for preparing an optically active 1-halogeno-2-hydroxypropyl compound by reacting an optically active glycidyl compound and a nucleophilic agent using a non-chiral metal complex according to formula (2) as a catalyst. Applicants have discovered that by using the non-chiral metal complex of formula (2) as the catalyst in the claimed process, a high yield of an optically active 1-halogeno-2-hydroxypropyl compound is prepared, with the high optical purity of the optically active epihalohydrin being maintained. (See page 27, lines 5-9 and Examples 1-10 of Applicants' specification.)

Takano et al. teach a process for preparing an optically active 1-halogeno-2-hydroxypropyl compound by reacting an optically active glycidyl compound and a

nucleophilic agent using an acidic catalyst. Takano et al. do not teach the catalyst used in Applicants' claimed process. Additionally, according to Takano et al., the optical purity of the object compound decreases (1%) from the optical purity of the starting material. (See Example in Takano et al.) This decrease is not preferable in the fine chemical field, and is not present in Applicants' process.

The Examiner relies upon Jacobsen et al. to teach that the catalyst used in Applicants' claimed process is know in this type of reaction. However, Jacobsen et al. do not teach Applicants' claimed process, nor the catalyst used in Applicants' claimed process.

The invention of Jacobsen et al. relates to a process for stereoselective or regioselective chemical synthesis which generally comprises reacting a nucleophile selected from the group consisting of water, alcohols, carboxylic acids and thiols, and a racemic or diastereomeric mixture of a cyclic substrate in the presence of a non-racemic, chiral catalyst to effect a kinetic resolution of the cyclic substrate. More specifically, the invention of Jacobsen et al. relates to a resolution method of a racemate using a non-racemic chiral catalyst.

The teachings of Jacobsen et al. differ greatly from Applicants' claimed invention. Jacobsen et al. teach the use of a racemic or diastereomeric mixture reacting with a nucleophile, while Applicants' claim 1 requires reacting an optically active (the opposite of racemic) compound and a nucleophilic agent. Additionally, Jacobsen et al. teach the use of a chiral catalyst (configuration), while Applicants' claim 1 requires a non-chiral metal complex catalyst according to formula (2) (planar structure). The catalyst of Jacobsen et al. and the catalyst used in Applicants' process are not interchangeable. Therefore, both the method and the catalyst of Jacobsen et al. differ from Applicants' claimed invention.

The Examiner asserts that if it is known that the catalyst used in Applicants' process is used as a catalyst in the instant nucleophilic addition to epoxides, then it would have been obvious to use them in the instant enantiomeric nucleophilic addition reaction with epoxides. However, the Examiner has provided no evidence to support the assertion that the catalyst used in Applicants' claimed process is known in nucleophilic addition reactions to epoxides. As discussed above, Jacobsen et al. do not teach the catalyst used

in Applicants' claimed process. Therefore, the Examiner's reliance on Jacobsen et al. to show that the catalyst used in Applicants' claimed process is known in nucleophilic addition reactions with epoxides is unfounded.

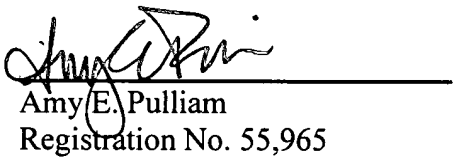
Neither Takano et al. nor Jacobsen et al. teach the catalyst used in Applicants' claimed process. Therefore, there is no teaching or suggestion to use this catalyst in the claimed nucleophilic addition to epoxides.

For these reasons, the invention of claims 1-29 is clearly patentable over Takano et al. in view of Jacobsen et al.

Therefore, in view of the foregoing amendments and remarks, it is submitted that the ground of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

Keisuke YAEGASHI et al.

By: 

Amy E. Pulliam
Registration No. 55,965
Agent for Applicants

MRD/AP/pth
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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